

REMARKS

By the present amendment, claims 63 to 65 and 67-71 are pending in the application. Claims 63 and 64 are the independent claims.

Support For Claim Amendment

Support for the amendments made to independent claims 63 and 64 may be found in now canceled dependent claim 66.

§102

Claims 63-71 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,727,579 to Eldridge.

This rejection, as applied to the amended claims, is respectfully traversed.

Patentability

The present invention provides a semiconductor device, using a bonding material for linking a semiconductor terminal to a connecting terminal for an outside circuit, characterized by reinforcing the bonding material and/or a joint between the semiconductor terminal and the connecting terminal with a reinforcing material comprising a metal coating and/or an inorganic material coating covering the bonding material and/or joint, and a diffusion layer at an interface between the metal coating and the bonding material and/or joint, as in amended claim 63.

In amended independent claim 64, the diffusion layer is located at an interface between the metal coating and a bonding wire.

On the other hand, the electrical contact structures formed by configuring a flexible wire disclosed in U.S. Patent No. 6,727,579 is a gold-tin alloy at an interface

between the gold wire and tin coating. The interface formed is a gold-tin eutectic, such as Au-Sn, or Sn-Pb, as mentioned at column 23, lines 37-40 "CASE-1 discloses depositing tin as a first layer on a gold wire stem, with a subsequent reaction of gold and tin at a temperature below the melting temperature of gold and tin eutectic", and at column 128, lines 3-7 "Next, the entire contact structure is subjected to heating sufficient to cause the gold (4902) and tin (4920) to form a gold-tine eutectic. It is within the scope of this invention that materials other than gold and tin, capable of forming a eutectic , can be employed-for example, lead and tin".

As stated above, US '579 does not disclose or suggest a diffusion layer at an interface between the metal coating, having a high melting temperature, and the bonding wire. Therefore, US '579 is very different from the present invention.

It is therefore submitted that independent claim 63 and independent claim 64, and all claims dependent thereon, are patentable over U.S. Patent No. 6,727,579 to Eldridge.

CONCLUSION

It is submitted that in view of the present amendment and foregoing remarks, the application is now in condition for allowance. It is therefore respectfully requested that the application, as amended, be allowed and passed for issue.

Respectfully submitted,

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